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AGRICULTURAL EXPERIMENT STATION.

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Three Troublesome Weeds.

Orange Hawkweed,

Wild Carrot,

Buffalo Bur.

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THREE TROUBLESOME WEEDS.

F. L. Harvey.

ORANGE HAWKWEED.

Hieracium aurantiacum, L.

(Order Compositæ; Sunflower Family.)

History.

Orange Hawkweed, a native of Europe, was introduced into the United States a few years ago and has spread rapidly. Its occurrence in Maine has been known for over ten years. It is now widely distributed in the State and in many places has overrun grass lands, orchards, pastures and roadsides. It is sometimes grown in gardens as an ornamental plant.

Description.

Stem simple, erect, nearly leafless, one to two feet high, clothed with hairs, those at the top of the stem black at the base. Leaves mostly at the roots, oblong-lanceolate, toothed, hairy on both sides and without a petiole. The conspicuous heads of orange colored flowers in a flat-topped cluster at the end of the stem. Heads composed of numerous small orange colored flowers, each one of which produces at its base a small dark brown, ten-ribbed seed-like fruit, which is provided at the top with dirty white hair-like bristles, by means of which the wind spreads the numerous seeds far and wide. The plant is shown in the plate on the preceding page. This cut and the others used in this bulletin are from publications of the U. S. Department of Agriculture.

Habits.

It is a perennial, the root stock surviving the winter. It spreads by means of runners at the base, thus rapidly extending the patch. It blossoms early, before time to cut grass. If cut early it sends up shoots from the roots which bear autumn flowers. The abundant seeds are provided with hair-like appendages which aid distribution. It monopolizes the soil, killing all grass plants and covering the surface with a dense mass of leaves. It is not good for hay. Its only redeeming feature is its beauty, which is poor recompense for its other characters.

ORANGE HAWKWEED.

This plant combines all the worst features of a weed and will not yield to ordinary, or careless treatment. The following precautions and remedies are suggested.

Precautions.

Do not grow the plant in flower gardens or carry the flowers home for bouquets.

Do not buy hay or straw from farms known to be infected with it.

Do not mix the hay from infected patches with clean hay. It would be better to burn the hay from infected patches cut after the seed is mature, rather than run the risk of scattering the seed by hauling, feeding, or in manure.

Agitate the necessity of destroying patches of weeds growing along road-sides, on abandoned or neglected farms, and on waste places in towns.

Learn to recognize the plant, so as to early detect its presence on the farm and destroy it.

Treatment.

Cut the infested patches early before haying if need be, to prevent early seeding, and again in the fall before the second bloom forms seed. This can be relied upon to prevent the formation of new patches by scattering seed, but will not kill the plants or prevent the spread of patches already formed. Nothing short of clean culture in some hoed crop can be relied upon to eradicate it.

THE WILD CARROT.

Daucus Carota, L.

(Order Umbelliferæ; Parsley Family).

History.

The wild carrot is a native of Europe. It is naturalized in this country and is spreading rapidly. It is found in nearly all of the states East of the Mississippi River and also farther West. It is common in Maine in grassland, along road sides and in waste places. It has been known in the State for over ten years and has spread to many new localities and the patches in fields have become larger and more numerous. The cultivated carrot was derived from it.

Description.

Stem erect, one to three feet high, bristly, branching. Leaves several times compounded, ultimate divisions lance-shaped and toothed at the end. Stem leaves long, swollen at the base and clasping the stem. Ends of the branches bearing white flowers in compound umbels, which become concave in fruit. Below the flower cluster are cleft leaf-like bracts called the involucre. The bloom contracts after flowering into cup-shaped clusters of one-seeded burr-like fruits. (Seeds). Root usually thickened with nourishing matter and living over winter.

Habits.

The wild carrot is usually a biennial. It thrives in nearly all kinds of soils and climates. It flowers from June to September and does not usually seed before time to cut hay. It sends up numerous flowering shoots from the roots after haying that mature seed before frost.

The seeds are covered with a hard spiny coat which resists the weather. They are often retained in the soil for several seasons without losing their vitality. The seeds are covered with spines which become attached to the coats of passing animals, distributing them widely. The fruits remain on the stalks until after snow falls and are then broken off by the wind and blown long distances. The plant in Maine is most abundant along road sides and in neglected places from which great quantities of seeds are annually distributed to adjoining fields.

Treatment.

As the root is biennial, prevention of seeding for two seasons would eradicate it. The plants could be destroyed by cutting the roots off below the surface with a spade. As the plant sends out flowers from the base after haying, a single cutting would not prevent seeding. The patches should be mowed again before the second blooms are matured enough to form seeds. As sheep are said to eat it, allowing them to graze on the grasslands after haying would keep it down. The plants along roadsides and in waste places should be cut so as to prevent the seed being spread by the wind and animals.

THE BUFFALO BUR.

Solanum rostratum, Dunal.

(Order Solanaceæ; Night-Shade Family.)

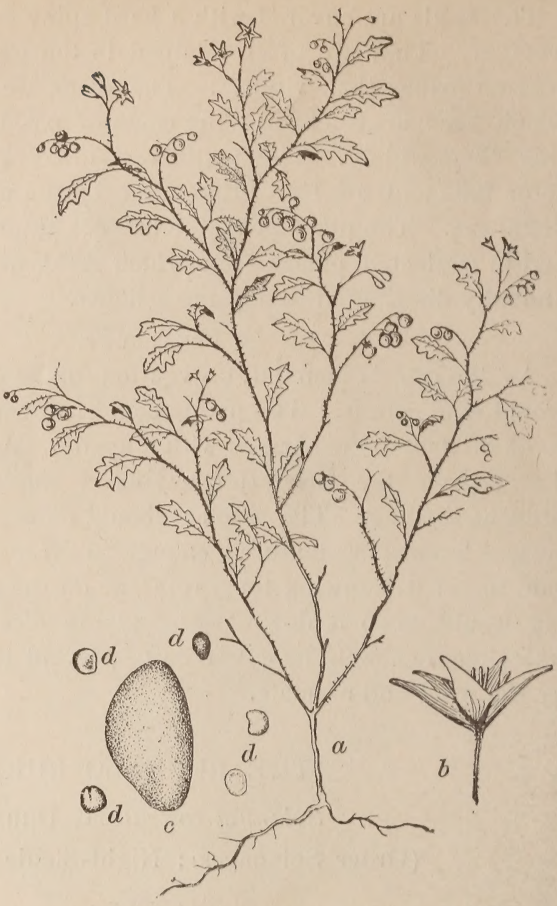
History.

The Buffalo Bur is a native of the western plains, close to the mountains, from Mexico northward to Dakota. It was spread by buffaloes and for that reason has been called Buffalo Bur. Since the settlement of the country it has spread eastward along road sides and to long distances in seed and packing materials. It is now found in most of the states in the Mississippi valley west of the river and in many of the states farther east. It has also appeared in Europe where it threatens to become a troublesome weed. It was detected by Mr. C. C. Carll, where western grain had been screened, at Buxton, Me., in September, 1896.

Description.

Stem branching, a foot or two high, horny or yellowish with copious star-shaped hairs. Leaves once or twice divided, resembling those of the water-melon. Flowers yellow, about an inch in diameter with a short tube and obtuse lobes somewhat

irregular. Stamens dissimilar, the lowest longer and stouter and curved inward at the beak. Fruit enclosed and adhering to the close-fitting, very prickly calyx. Seeds thick, wavy, wrinkled. The plant is related to the Irish potato, Night-shade, Horse Nettle and Jerusalem Cherry. The plant reduced, and the flower and seed natural size, are shown in the cut which is taken from a bulletin of the United States Department of Agriculture.



HABITS.

Annual. Seeding late in Northern states. Seeds not abundant. Not usual in well cultivated grounds but preferring road sides and waste places. The plant is bushy and breaks off and is blown about by the wind. It is a coarse, prickly, potato-like weed, producing round fruits covered with spines that become attached to the hair or wool of animals.

TREATMENT.

As the plant is an annual it would be destroyed in a single season if prevented from seeding. As it is liable to occur only sparingly in Maine, about railroad stations and where Western grain is handled, the scattering plants may be pulled up before they seed. If it should appear in fields from sowing western grain, the patches should be carefully cut before seeding. As the plants are apt to put out flowering branches about the roots after early cutting, a second cutting may be necessary.